Official Undergraduate News Organ of Technology

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CAMBRIDGE, MASS., WEDNESDAY, FEBRUARY 11, 1925

Five Cents

CIRCUS COMMITTEE **MAKING PROGRESS** IN PREPARATIONS

In Need of Acts by Individuals And Unorganized Groups To Make Success

ARMORY NOT YET CERTAIN

Activities, Societies, Dorms, And Fraternities, Are Now Preparing

Plans for the coming Technology Circus on February 27 are now rapidly being formulated. The committee manaing formulated. gers in charge of stunts to be put on by fraternities, dormitories, professional societies, and activities have communicated with their respective groups, and nearly every organization has already been assigned some stunt.

The greatest need of the circus at present is individual acts and stunts by groups that do not come under the above classifications. Individuals and groups who wish to put on a stunt will be received by the committee with open arms, and if they have no special ideas of their own with regard to a stunt, the committee will assist them in choosing some appropriate act.

Stunts Report to Managers

In all cases, those who desire to run an act should communicate at once with their group manager so there will be no duplication. For individuals, and groups that do not come under the classified organization, C. L. Petze Jr. '25, has been appointed manager, and it is urgently requested that all ideas and proposals not under the authority of the other committee managers be referred to Petze as soon as possible. Activities are referred to D. A. Henderson '25; Dormitories, to A. G. Hall '25; Professional Societies, Harrison Browning '25. Ring stunts are in charge of Austin Cole Jr. '25; Booths in charge of Charles Gillman '25; and Publicity, S. H. Baylor '26. H. C. Hoar '25, is the General Chairman of the Circus Committee.

The safety and decorum of the affair will be amply assured by many competent members of the local fire and police departments. The assistance of the latter may come opportunely, since that "wild woolly" atmosphere, a la Rex Beach, will prevail at one of the booths.

Whether the Commonwealth Armory will be available for staging the circus is not known for certain as yet, but the Circus Committee is optimistic, and is confident that no further hitch will come in its attempt to secure the armory.

PROFESSOR PAGE WILL

Third of Popular Science Talks To be Given Sunday in Room 10-250

The third of the series of Popular Science Lectures given under the auspices of the Society of Arts will be held on Sunday afternoon, February 15, at 4 o'clock in room 10-250. Professor H. C. Page of the Department of Physics will speak on "Electrical Conduction in Gases and in Vacua," illustrating his subject with many experiments. Among them the striking phenomena attending the production of cathode rays and X-rays will be shown. This subject is of interest in that through the study of electrical conduction in gases, particularly at low pressures, many of the most important recent advances in the theory of the nature of electricity and the structure of matter have been

"The physicist is interested most in the vacuum tube because it gives him a chance to study the atom in an isolated condition, much better than it could be studied in fluid or gases. If it had not been for the invention of the tungston light, the gas filled tube would be the light used at present for it has as high an efficiency, but it is more expensive and fragile so that the tungsten light displaces it. Evacuated tubes give off different colors depending on the hardness of the evacuation, and when filled with different gases they produce the colors of the spectrum. In addition to the discussion of these tubes, the power line loss, corona, will be demon-strated experimentally at the lecture," Professor H. C. Page said.

Free tickets may be secured at the

Information office.

DANCE MARCH 5 IS TO BE FREE FOR JUNIORS

A formal dance, free to Juniors, will be held by the Class of 1926 on March at the Hotel Somerset. The dance will last until 1 o'clock.

Tickets will be distributed to members of the class during the week. Only Juniors are to be permitted to attend Music will be furnished by the Tunesters. Owing to the fact that the class funds are limited, no refreshments will

be served. R. W. Head '26, president of the class, is chairman ex officio of the committee in charge of arrangements. A W. French, Jr., is to be head usher F. E. Walsh is in charge of programs finance is in the care of J. E. Walker and music will be taken care of by Ray mond Mancha, all members of the class

MILITARY SOCIETY TO SPONSOR DANCE

Scabbard and Blade Will Give Annual Military Ball February 20

Arrangements have been completed for the annual Technology Military Ball to be held in Walker on Friday February 20, from 8 to 12 o'clock. The dance will be a uniform affair and all Advanced R. O. T. C. men are eligible to attend.

Officers from the Institute are invited to attend as well as those from as many as he desires. the Air Port, Army Base and Navy Yard. Tickets at \$2 a couple are on sale this week, and may be obtained from members of Scabbard and Blade and from Lieutenant E. H. Levy of the Military Science Department.

New Flag Will Appear

Scabbard and Blade is in charge of the dance, but the committee wishes it understood that the dance is not only open to members of that society but also to all members of the Advanced R. O. T. C. unit at the Institute. According to present plans the decorations will be in the military style, such as will be permitted in Walker, and will probably consist of gun stacks and pieces of ordnance.

The dance will mark the appearance of the new flag of the Technology R. O. T. C. unit, as well as the new national colors which were presented by the Reserve Officers Club. Music will be furnished by Hackett's Orches-

Scabbard and Blade is a national honorary military society. It holds a dance for military officers and students every year, and the dances are usually very well attended.

TALK ON VACUUM TUBE COURSE X PROFESSORS WRITE T.E.N. FEATURE

News Appears Monday

"Ninety three percent of the power load of the country is located east of the Rocky Mountains, whereas this area possesses only thirty percent of the total potential water power, of which only a minor part has been developed," states an article on "Gas and Fuel Engineering," by Professors R. T. Haslam and J. T. Ward of the Chemical Engineering Department in February's issue of T. E. N. The magazine will be placed on sale Monday morning.

The production of sufficient power for these eastern territories has become of prime importance in industry, states the article. In order to supply the need for experts in this work the department of Chemical Engineering is to give a graduate course in Fuel and Gas Engineering starting next fall. The authors explain in their article the requirements

of students entering the course. Both Masters' and Doctors' degrees will be awarded. The course will consist of alternating class room and in-

dustrial work.
Professor G. L. Hosmer '97 describes in one of the articles, the solar eclipse which so recently engaged in the pub lic eye.

Other articles include: "Spavinaw Water Supply Project." by W. R. Holway '15; "A Mercury Heating System," by Joseph Moosebrugger '21; "Lightning," by F. W. Peck, Jr.; "Marine Superheaters," by J. J. Nelis; "Pion eering the Electric Locomotive," by L. M. Aspinwall and "Rubber Payerment" M. Aspinwall, and "Rubber Pavement," by E. S. Door '75.

SENIOR OFFICERS WILL BE ELECTED BY CLASS TODAY

Will Elect 25 Men for Senior Week Committee and 3 Class Marshalls

POLLS TO BE OPEN ALL DAY

Seniors will elect today their Class Day Marshalls and Senior Week Committee. The polls will be held in the Main Lobby from 8:30 till 5:30, so that all members of the Class of 1925 will have a chance to vote.

Three Class Day Marshalls will be elected and 25 members for the committee. Only 32 men are candidates for the entire 28 positions, and of the four running for marshall, three are also candidates for membership on the committee.

Results Announced Tomorrow

The marshalls will be elected by the preferential system and the committee by the Hare-Spence System. In regard to the voter both these systems work entirely alike. The only difference lies in the manner of counting the ballots, the Hare-Spence System having a less complicated method of counting the votes. In both these systems, the voter numbers his candidates in the order of respective preferences for them, numbering

The results of the election will be announced, as is the custom, at the Institute Committee meeting tomorrow evening at 5 o'clock. The elections will then be ratified by the assembled body.

All the activities of Senior Week in June are governed by the Senior Week Committee. The position of marshall is not connected with the work of the committee and is an honorary office.

Radio Broadcast Results In Many Letters to Clubs

Reports Sent in From Florida, Canada, Kansas, and Other Points

Kansas and Quebec, Florida and Michigan, and hundreds of other places have sent to the Combined Musical Clubs announcements that they heard the broadcast of the Clubs on January 14. Some of the letters and cards were

very complimentary. A resident of Quebec wrote in French February Issue of Engineering a tribute to the performance of the Mandolin Club. From Miami comes congratulations to the Banjo Club. A man in Highland Park, Michigan, declared that the concert had helped immensely to cheer up his sick wife.

Many of those who wrote in were Technology Alumni, some sending telegranış from as far as North Carolina, Ohio and Alabama.

Some of the comments were as fol-

"Felicitations pour une bonne per formance," from Quebec. "Your program was very delightful. We especially enjoyed the performance

of the Glee Club," from Florida. "Thank you for a very pleasant even-ing's entertainment. We particularly enjoyed the Mandolin club, which we heard quite plainly on our two tube declares a woman in Pittsburg

From an Alumnus in Alabama comes the following: "Your performance was very good. I was particularly interested as I am of Technology.

Many of the big radio companies sent appreciation cards praising the performance of the clubs.

E. B. Haskell, publicity manager of the clubs, declares, "To broadcast is especially good advertising for Tech nology because it brings the Institute into the public eye and at the same time helps to contradict the impression prevalent in some localities that Technology is a man-factory, since it shows of the extra-curriculum activities in

A large proportion of letters asked that the broadcast be repeated. Ac end of the school year,

TECH SHOW ANNOUNCES **CUTS IN MANAGEMENT**

Tech Show announces that the following men have been retained in the stage and orchestra departments of the management: Stage Department: C. P.
Whittier '27, A. C. Dahl '27, D. R. Donovan '28, G. Y. Flynn '28, and R. H.
Titherington '28: Orchestra Department: I. C. Whitcomb '27, M. W.
Keyes '28, and G. V Patrick '28. Further cuts in the management will be made at the end of this week.

Men who have been retained in the cast, chorus, ballet, orchestra, and the Sophomore and freshmen assistant managers are requested to report at the show office, room 301 Walker, tomerrow or Friday afternoon from 5 to 5.30 o'clock and leave a deposit of \$10.

Pictures of the cast, chorus, and ballet are to be taken by White, at a date which will be announced shortly. Costumes for those who are to take part in the show have not as yet been decided upon.

SOPHOMORE DANCE IS MADE INFORMAL

Ticket Sale Advances With the Change and Good Crowd Is Expected

At a meeting of the Sophomore Class officers and committee Monday evening, it was decided to change the Sophomore Hop from a formal affair to an informal one. This decision was brought about by adverse criticism expressed by many of the class to a formal dance and by the poor response attending the sale of tickets. Yesterday the sale advanced markedly. quite a few upperclassmen taking tickets and many Sophomores. From present prospects a crowd of about 200 couples that will comfortably fill Walker is expected.

Contrary to the general belief that, since the dance has been changed to an informal one, it will stop at twelve, the affair will go on until one o'clock as before. A special permit, given by Austin Cole 25, Chairman of the Walker Memorial Committee made the extension of time possible as there is a ment of Physics, Professor Norton has rule that allows only formal dances to run past 12 o'clock.

Bert Lowe with the same orchestra furnish the music. In the nine-piece jazz band are included Lou Calabreese, the popular banjoist and cornet player and also Paige whose specialty is the xylophone. The reputation of the copation is well-known.

Tickets will be on sale in the main lobby today and Thursday. About 300 couples make Walker too crowded so the committee has decided to limit the number of couples if necessary. Stags will be limited so as not to have a stag line that will make the custom of cutting in too much of a nuisance. Mrs. Passano, Mrs. Ford and Mrs. Ross will chaperone the affair.

MEETING OF AMERICAN CHEM. SOCIETY IN 5-330

Subject Will Concern X-Rays and Atomic Structure

All Institute students are invited to the next meeting of the Northeastern Section of the American Chemical Society to be held in room 5-330 on Friday evening at 7.30 o'clock. There will be three talks all dealing in a popular way with some phase of X-rays and the structure of crystals and atoms, given by authorities in the field, and will be illustrated by slides, demonstrations and models. An informal dinner will precede, and will be served in Walker Memorial at six o'clock. The tickets are \$1.25 a plate.

The program wil consist of three The first will be given by Dr. H. H. Lester, director of research at the Watertown Arsenal, who will speak on "The Nature of X-rays, Radiography, and X-ray Diffusion as Applied to the Problems of the Industrial Laboratory." This will be followed by "The This will be followed by Analysis and Significance of Crystal Structures as Determined by X-rays" by Dr. W. P. Davey, of the Research Laboratory of the General Electric Company at Schenectady. The third subject will be "The Scattering of X-rays and Atomic Structure" and will rays and Atomic Structure," and will be given by Professor P. Debye of the University of Zurich, at present guest lecturer at the Institute. This will be cordingly, the clubs are planning to Professor Debye's only appearance be-broadcast again some time before the fore any section of the American Chem-Professor Debye's only appearance be-

POSITION OF THE SCIENCE COURSES TO BE DESCRIBED

SCIENTISTS NOT ISOLATED

Professor Norton States That The Work in Science Has Changed

"The feeling that students who take the course in science rather than in engineering find themselves leading an isolated life in the laboratory rather than actually going into the work of production and development is under present day conditions entirely un-founded," said Professor C. L. Norton, who is to give the next lecture to ireshmen, tomorrow at 11 o'clock. Among the large industrial and engineering concerns it is not infrequent to find as the principal operating executive heads, physicists, chemists, and biologists. Further it would almost seem that there is something in the matter of the training in science which develops executive capacity when we consider that of the recent executives of the Institute, James M. Crafts, President, and A. A. Noves, Acting President were chemists, and that Presidents R. C. Maclaurin, E. L. Nichols and S. W. Stratton were all physicists."

Gives Outer World Viewpoint

Professor Norton will discuss with the freshmen the science courses as given at the Institute, and will point out the kind of work and general working conditions of the men who have taken these courses in the past, and the probable situation in which later graduates will find themselves.

He will be able to discuss these matters from a point of view which is not too strongly academic because of his active interests wholly outside of the scientific departments of the Institute. been for several years in charge of the Division of Industrial Co-operation and Research, and has therefore been that played at the Winter Concert will in very close touch with the alumni who are engaged in industrial operations. Moreover through its personnel division, Professor Norton and his associ-

Continued on Page 4

DEBYE TELLS SEMINAR ABOUT QUANTA THEORY

Validity of Wave Theory of Light Is Discussed

At the meeting of the Physics Seminar held yesterday afternoon Professor P. Debye of the University of Zurich, spoke on the subject, "The Compton Effect and the Duration of Quantum Process." Professor Debye is a guest of the Institute and has been giving a series of lectures on the modern

aspects of physical chemistry. The important question of the validity of the wave theory of light was taken up, in the light of recent experiments, which tend to show that the analagous theory of projected particles is the true one. Experiments on the photo-electric effect show that the energy of electrons freed by light does not depend at all on the intenisty of the light, but only on the frequency, so that it seems as if the light consisted of traveling light quanta, each of them carrying an amount of energy proportional to their frequency. In defense of the wave theory it was stated that the interference effects of light can not be accounted for by the quanta the-The development of a theory which will combine the two theories or replace them both is one of the greatest problems of modern physics.

CALENDAR

Wednesday, February 11 ' 3:30—Senior elections, Main Lobby, 3:00—Basketball, Tufts vs. M. I. T., Hangar

Thursday, February 12 1:00—Freshman talk, room 10-250. :45—Reading, Walker library. :00—Sophomore hop, Walker. 8:00-Circus Committee meeting, committee

room, Walker.
Friday, February 13
7:00—Civil Engineering Smoker, Main Hall, Walker.
Friday, February 20
8:00—Military Ball, Walker.

A Record of Continuous News Service for 43 Years



Official News Organ of the Undergratuates of Technology

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WHY REDUCE THE NUMBER OF SPORTS?

THERE has recently been an undercurrent of discussion over the problem of reducing the number of sports at Technology. The question has been precipitated by the precarious position in which several of the minor sports now are.

We hold the proposed plan of fewer and more concentrated when hold the proposed plan of fewer and more concentrated athletic activities to be untenable. It is a violation of the whole spirit and law of the Institute athletic system, for it tends toward of alleged jokes that the English are sport discrimination and a spirit of professionalism. The athletic accused of perpetrating. The Lounger system must be as broadly inclusive of all types of athletic ability system must be as broadly inclusive of all types of athletic ability and temperaments as it is possible to make it. Only by being so can it offer to the student body the variagated opportunities for physical development that a cosmopolitan group of students such

The minor sports that are in a tottering position, in general, are being strangled by purely external limitations, rather than by a lack of serviceability and attractiveness to the students. Futhermore they are indispensable because they offer to the few an opportunity for physical recreation that they would not otherwise have. To deny their right for existence is to deny the right of the minority for the sake of the majority. It can only be re-emphasized that it is not a question of developing winning teams that should determine athletic policy; it is a problem of offering to the students the broadest and most wholesome athletic opportunities possible. In lieu of this great principle, minor sports must be continued, must be fostered, must not be allowed to succumb if there is any possible chance for resuscitating them.

It is urged that the managements of some of these dangerously weak sports make Herculean endeavors to place their activities on a firm footing. Do not let the Great Devil Pessimism dishearten. Minor sports must be saved, built up, and made thoroughly serviceable for those who wish to participate in them.

LATENESS

¹ A T this time of year there is always a great tendency for men A to be habitually tardy for nine o'clock classes. It has become quite customary for men to drop into classes about five or ten minutes late. This practice is most disconcerting to both instructors and students. Why can not every one get in on time? The extra effort required to get up a few minutes earlier in the morning should be well repaid by the knowledge that one is not annoying his classmates and his professor.

It is usually assumed that every man will make an honest effort to be prompt, and that he will only be late because of some unusual and unavoidable circumstance. Going on this supposition. it has been customary for professors not to lock the class room doors when the bell rings. It has been thought only fair that a man, late through causes not under his control, should not be excluded from the recitation. Of late, however, the falacy of this hypothesis has been proven by the fact that most of those who come in late are dormitory men who have absolutely no excuse for not

This, to use the trite editorial style, is a "deplorable state of affairs." If men continue to make it the rule to get into class after the recitation has begun, it will be necessary to resort to the unpopular, but highly effective method of enforcing promptness, the habit of locking the door. The fairest thing is to be on time, lest by avoidable tardiness, one forces the professor to adoptd the "locked door" policy, so apt to be annoying to all concerned.

A WORD TO THE WISE

TT is not too early to point out, now, that the end of the term, and 🗘 examinations, are not so far distant. This time of year is usually one of pretty general lassitude for most of us. We drift along with more or less indifference, overcome by the midwinter lull and its attendant Boston weather.

There is always a strong tendency to let things slide, more at this time of the year, perhaps, than any other. Spring examinations suddenly loom up, and find a sadly large number with veritable mountains of back work to be demolished before the end of the term. To find one's self thus snowed under in the last few weeks, with the additional prospect of examinations to be met, is a decidedly undesirable situation.

Now is the time to hit into any back work undone, catch up with everything, and get things in line so that when the end of the term comes it will not find us with neglected work, but with everything clear so that we can prepare for examinations unhampered by a mass of neglected work.

Our friend "The Lone Wolf" is most assuredly making life exciting for all of Boston, from college girls to the posing force. The latest news is that all simmons girls have to be in at 8 every the usual run of theatrical ideas. Most of the play is the dream of the hero, has courage (of a badly twisted and warped variety) to keep up his little stunts with the entire bunch of Boston on the lockest for him. cops on the lookout for him!

There seems to be a great epidemic of puns around the 'Stute. One of the worst was pulled off in Doc Tryon's GS 3 class. One of Technology's foremost humorists descended so far as to get off the wise remark that "it must be quite a job 'Tryon' on a 'suit' of International Law." The Lounger advises said humorist to use discretion in the future lest some one bring suit against him for disturbing the peace.

Street car ads have always been a source of amusement. The one that tells of the merits of a soap that "is guaranteed not to fade fast colors" takes a chance. They stick to certainties. We will have to try the same stunt in telling our families how we are coming out in our studies—'I'll pass unless I fail."

Knowing that the pun is one of the lowest types of humor, the Lounger refuses to assume any responsibility for this one:—Junior: Mr. — won't you nology would wittingly be guilty of such an atrocity. We will give the man the benefit of the doubt and try to believe that he did it unintentionally.

At least one member of the Faculty realizes that 10-250 is conducive to slumbers. Prof. Dewcy started off his ecture in Ec 32 on Monday by saying that he had had difficulty in choosing his topic "for the weekly rest hour," and had finally picked "agriculture" and ts effect upon engineering and prosperity on the whole, "since such a subject is far less liable to disturb one who is sleeping." than a lecture about transportation or something of that sort.

Monday's night fog through which the Lounger had to feel his way reminded him of the good old days in London when he had to find his way home through the "pea soup" fogs by dead reckoning. Gosh but it was mug-

The Lounger hears that one of the a pit mixed in his ethnology the other day. As the story comes to him, this professor said, "Lafcadio Hearn was the son of an Irish surgeon. His mother was Greek, and he was trained and burlesque of the American dumb belle. All told, "The Beggar on Horseback" is refreshingly new and altogether delightful.

C. R. er was Greek, and he was born on a little island belonging to Greece, from which island he got his name. He set tled in Japan, became a Japanese citizen, and married a Japanese woman of one of the old Samurai families. He thus had a better opportunity of learning the culture of Japan than any other American of his time."

Now that the midwinter thaw is upon us, the Lounger has noticed that it is necessary to almost swim to class through lakes and rivers. This inconvenience has suggested to his inventive mind a new profession. Why not have "Sidewalk Engineers" who shall be taught to build paths that will not hold as much water as most of those around Cambridge town manage to col-By use of many complicated formulae, the Lounger has determined the amount of water now on the sidewalks in the vicinity of the Institute. If his computations are correct, the water through which we must wade on our weary way to and from classes, placed end to end on top of Bunker Hill Monument would reach somewhere or other. This startling discovery may result in even more important revelations! Scientists are now investigating the matter.

Play Directory

COLONIAL: Ziegfeld Follies. The same sort of thing that people have been enjoying for COPLEY: "Androcles and the Lion." viewed in this issue.

HOLLIS: "Meet the Wife." Comedy that appeals to most of us.

PLYMOUTH: "Grounds for Divorce." Ina Claire's good acting predominates.

MAJESTIC: "I'll Say She Is." Reviewed in NEW PARK: "New Brooms." Domestic affairs made funny. ST. JAMES: "The Misleading Lady." Reriewed in this issue. SELWYN: "White Cargo." Good opportunity for Leon Gordon to display his ability. SHUBERT: Greenwich Village Follies Very

TREMONT: "Be Yourself." Eighth week in

WILBUR: "Beggar on Horseback." Reviewed

AT THE PLAYHOUSES

BEGGAR ON HORSEBACK CLEVER AND DIFFERENT

It may be true that "there is nothing new under the sun," but "The Beggar on Horseback," which opened at the Wil-Lur Monday evening, is a most decided and highly entertaining departure from surreptitious pinch now and then to be sure he isn't dreaming.

Neil MsRae, most ably played by Roland Young, is a penniless young composer of some genius, who is being chased by a wealthy young lady of extraordinary provinciality and unattractiveness. He is really in love, of course, with some one else, the girl who lives across the hall. Of course she urges him to marry the other girl so he can have the wherewithal to properly devote himself to his music. In desperation he decide to do this, and while he is waiting the girl, falls into a fitfall sleep, as a esult of an opiate which a doctor friend

had given him. Pantomine Presented His dream is a terrible tale of his married life with the rich one. Episode after episode melt into each other, exactly as in dreams. In each there is some clever satire on American life, and the observations and take-offs are delici-ously amusing. The bane of the bour-geois, the scandalous avidity of American ewspapers, the red tape of corporations and courts, all come in for their due. A touch of startling realism is added by the distribution of newspapers by screaming newsboys to the audience, directly after Neil has been interviewed shout his murder of his family-in-law. These papers, incidentally, are masterpieces of foolishness, and burlesque our

ordinary newspapers most mercilessly. In sharp contrast to the satirical reaminess of most of the play is a delicately pretty pantomine called "A Kiss in Xanadu." It is supposed to be one of the creations of McRae's genius, and represents a flirtation between a Crown Prince and Princess, both having gone out disguised. It is done with much finesse and daintiness, and forms a particularly happy contrast to the nightmarish background of the rest of the dream.

Naturally after such a dream Neil has a decidely minute affinity for the rich girl, "Gladys Cady," (Ann Carpenger); and it turns out she has weakened, too, to the result is that he goes back to "Cynthia Mason," (Kay Johnson), the

girl across the way.

The staging is skilfully appropriate to the play, as is the cast. Mr. Young, particularly, is excellent. Miss Johnson, is good, and Miss Carpenger, as the awful Gladys, gives an inimitable characterization and burlesque of the Amer-

MARX BROTHERS BACK

Marx Brothers and Company Ltd., the sky is the limit) as chief cooks and bottle washers make the musical comedy revue "I'll Say She Is" at the Majectis and uproarously funny and capital entertainment. It has been some time since a revue as well balanced and thoroughly pleasing as this has come to Boston,-not since it was here

The beginning of the first acts gets away rather slowly, but it is an accelerative affair and steadily gains momentum until the side-splitting climatic scene in which Napoleon (alias Julius Marx) vainly attempts to prevent his Josephine from cavorting with his courtiers, i.e., the other three Marx Brothers. Two of the brothers play the piano, one in the most ludicrous and deft manner human fingers can be kinked Another one—the red headed into. one that never speaks a word, plays a harp admirably and ends up in a blaze of comedy. As Bernard Shaw said of incomparable someone else—"the The other one-tenth of the show rests

apon the agile shoulders of D'Andrea (Continued on Page 4)

BERNARD SHAW SATIRE AMUSES AT THE COPLEY

The Copley players are this week presenting George Bernard Shaw's satirical version of the ancient fable of Androcles, the "humanitarian natural-The plot deals with the persecution of the Christians by the Romans in the days of the gladiators and "thumbs down" Caesar, but in this particular instance the persecution fails to function properly, to the joy and satisfaction of the audience.

Mr. Clive in the role of a timid Greek, who through kindness, tames a roaring lion in the wilderness, is as usual, very good but one cannot help wishing that his English accent were less pronounced, as it seems quite out of place in conversing with the old Roman Emperor. Richard Whorf proves a very entertaining and gentle lion but his "roaring" is very timid and piteous when compared to the violence of the boisterous and raucous Centurian, played by C. Wordley Hulse.

Between two acts of gorgeous fooling came the real "meat" of the play the scene between Lavina, a very attractive Christian prisoner, and the Captain of the Guard. Here is ably presented the struggle between the "temporal and the divine" the "material and the spiritual." One might wish for more variation and strength in Miss Standing as Lavina but there can be no gainsaying that she was exquisitely saintly. As usual with a Shaw satire the play ends leaving one with much F.E.A.

CHARMING COMEDY AT ST. JAMES THIS WEEK

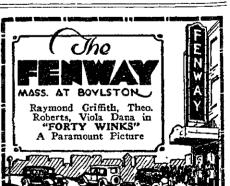
George Giles has chosen for this week's presentation of the Boston Stock Company at the St. James Theatre a rip roaring comedy of social life "The Misleading Lady" by Paul Dickey and Charles Goddard. The show is different from the usual. It begins with a proposal but ends without one, this little formality being unnecessary under the conditions of the play.

It is the story of a girl who makes a man propose to her on a bet and it is his little prank which forms a nucleus for the rather weak plot. That the plot s weak, there is little doubt. It is highly mprobable but it nevertheless a very enoyable show.

Napoleon Bonaparte comes back to life again in the form of Ralph Remley, a lunatic, who suffers under the delusion hat he is none other than the great French general. He does his best to smooth over the tense moments in the play and does it well. Mr. Remley gives noteworthy characterization of a denented soul even to the extent of bringng out the pathetic element in his con-

Bernard Nedell leaves little to be desired in the role of Jack Craigan, the man who was the object of the proposal at the beginning of the play. Helen Elsie Hitz, is ncere. iayed by ng and beautiful leading lady. Craigen takes it upon himself to tame the modern shrew and when she dared him to treat her rough, he took up her challenge in a most primitive manner.

This is one of the best roles Miss Steele has had this year and she made a remarkable success of the part. The entire company is well cast and gives a very enjoyable performance. Houston Richards has a minor role this week in the person of Stephen Wetherbee, but as usual gives an excellent performance. Ralph Morehouse and Samuel Godfrey give some good comedy as two drunks on the way to Redwing and the Redwing lunatic asylum.





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TECHNOLOGY QUINTET MEETS TUFTS TONIGHT

Coach McCarthy Will Try New Lineup-Eager to Play Center-Hinck In as Guard

Frosh Will Take on Tufts '28 in Double Header In Hangar at 7 O'Clock-Varsity Contest Follows Yearling Engagement

A revamped varsity basketball team will take the floor against Tufts tonight in the hangar. Coach McCarthy has developed a new line up which should eliminate some of the difficulties found in previous games. Captain Eager has been shifted from a guard

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Previous to this season he had always played center but was tried out at guard. Although he played a fast game in that position, he should be able to work better in his new berth. Wilcox has gone from center to take Eager's place at guard, and Ingram and Hinck have exchanged positions. Hinck now plays guard. This combination should produce a better brand of team play then was shown previously. Tech's defeats in past games have been due not so much to the superiority of their opponents as to failure to play to-

Forrester Has Same Berth team should be in fine shape to give the Tufts delegation a close run. Although Tufts has a fair record, they have not had a sensational season by any means. They have been beaten by Wesleyan, Rhode Island State, and New Hampshire State. They have won over Pratt Institute and Northeastern. The only one of these teams which a win over them by one point.

will play at his usual place at Forward. guarded. Forrester has been high scorer in nearly all the games played so far, and may

been in good scoring position. In his thusiastic reporter said he counted fulnew place, he may find more opportu- ly 55 stops for the Cardinal and Gray nity to loop the leather. Hinck is ta- goalie. Whether this was an attempt from any distance this should not handled defence is not known. However, we dicap him. Moreover, he plays a fine are safe in saying that Johnny was guarding game, and will probably be going good in the net against the show-

The game will be preceded by a skir-

The line up for the varsity game: 1.f., Possian Forrester, r.f. ... r.f., French Wilcox, I.g. Lg., Dawson

Splashes

Wood who has been winning the dives consistently during the season found himself up against a couple of fine divers in Blew and Monney. Blew was a strong competitor for the Olympic squad dur-

(Continued on Page 4)

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HOCKEY TEAM WILL JOURNEY TO MAINE FOR THE WEEK END

the Season

TEAM IS IN GOOD SHAPE

This week end the hockey team will journey to Maine where they will wind up their season in two games, the first against Bowdoin at Brunswick on Friday and the second with Bates at Lewiston. After their successful week-end of a few weeks ago when they de- 150 pound Varsity. feated both Cornell and Hamilton on a trip through New York State, the team laid off practice in order to give the men a chance to get caught up in their work. The practices that they have had in preparation for this trip have gone off in great style and everything points to repetition of their former success.

Crandell, Berkeley and Randall are going strong and are all set to step on the ice full of pep. Bill Berkeley played a wonderful game against Hamilton, his defence work being superb. Several times he brought the puck down close to the Hamilton goal undown the center of the rink he scored. Crandell is another man who has de-After more than a week's lay off, the veloped rapidly this season into a good defence man. Both of these men are Sophomores and will be great players to build next year's team around

Johnny Deignan In Goal Randall has been doing most of the scoring this season for the squad and with Morton at center they make a strong pair on the forward wall whose fast skating and accurate shooting pro-Tech has met is Northeastern, scoring vide a constant worry to the opposawin over them by one point. The team has improved greatly since will guard the Technology net against then, and the strongest combination the attacks of the Maine Collegians and Technology has had this season will if he is going as good as he did against face the Tufts quintet. Bill Forrester Hamilton the Tech net will be well-

In the Hamilton game Johnny stopped everything they sent at him, stopbe counted on to drop the ball through ping some that seemed impossible omething like the exhibition Denton Ingram, the other forward, may pull Massey gave against Harvard last seasome surprises. He has a good eye for son when he was credited with about the hoop, but so far this year has not 70 stops. Well, at Hamilton an enken out of his position near the basket, to eulogize the ability of the Hamilbut as he seems to be able to score tonian offence to pierce the Technology nore valuable there than at forward. er of shots directed at him.

Gerald Wiggett expressed himself as mish between the freshman team and pleased with the team's showing in Tufts' freshmen at 7 o'clock. The their last practice sessions. If the yearlings had a rather stormy time in squad shows the same amount of pep their last game with Wentworth, but as they have shown in the last practhey expect to put up a better scrap tought. The usual line up of Miller, Bianchi, Estes, Ross and Mock will both the coach and Manager Charley probably start. Poore. This last trip will end the season for the team, but there is still a chance open that the student-body will have an opportunity to see their team in action next week at the Arena. According to Poore, this is only proposed

and not definitely decided upon as yet. Following is a list of men to go on the trip: g. Deignan: r.d., Berkeley: I.d. Crandell: c, Morton: r.w., Niles: l.w., Randall; subs, Freeman and Weissner.

TO HOLD HANDICAP **CONTEST SATURDAY**

Coaches Expect Large Turnout— Is Sixth Event of the Season

After a period of week end intercollegiate track meets, the sixth handicap track meet of the year will be run off on the board track next Saturday. The last handicap meet was held weeks ago and the number of events were limited by the cold weather. If the mild weather continues the coaches will be able to run off a larger number of events that they have been able to stage in the last few

According to present plans the following events will be run off: 60 vd.-dash 300 yard run, 600 yard run, 1000 yard run, one and a half mile run, pole vault, high jump, broad jump and the 35 pound hammer. The coaches expect a large turnout Saturday and as a result the meet should be featured by some close com-

Many of the events at the present time are hotly contested and although the series of meets are more than half over, the results are in no way certain. The week end track meets of the past few weeks, notably the B.A.A. meet and the K. of C. contest last Saturday have made it inadvisable to stage handicap

(Continued on Page 4)

Manager Plans Two Additional Crew Races With Harvard Eights

Races with Harvard are hard to get, but as a result of Manager Bowdoin and Bates are Foes Guy Frisbie's consistent dickering with the Harvard managers, two more races have been arranged. Although not definitely decided upon, but subject merely to the approval of Harvard's Advisory Committee, it is almost sure that the races will be held.

As the Varsity eight will meet the Crimson oarsmen on May 9, when Pennsylvania and Cornell will also vie for places in the big quadrangular race on the Charles, another opportunity for Technology to pit the Varsity against Harvard's best is not necessary. Prior to this time, however, nothing was said about the Junior Varsity of

Assuming that the Advisory Committee at Harvard will ratify the arrange ments made by the managers, the Junior Varsity will meet Harvard's sec-ond Varsity eight on May 16. Also the freshman 150 pound crew will race the Crimson yearlings of the same weight. No definite date as yet has been reached for the 150 pound Varsity to compete against John Harvard, but it is almost sure that a race will be arranged.

Hopes for Thaw Should similar weather conditions continue as have been prevalent for the down close to the Hamilton goal un- last few days, it will not be long before assisted and on one of these dashes the river opens up. Bill Haines is watching daily, and patiently waiting for the day when he can commence his coaching from the launch instead of from the boathouse. About four or five years ago the Charles thawed out on the 14 of February, and Bill is in hopes that a similar happening will occur this year.

During the past five weeks the men

(Continued on page 4)

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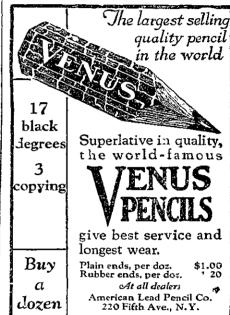
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NEXT FRESHMAN TALK TOMORROW

Professor Norton Will Discuss The Pure Sciences and Their Openings

(Continued from Page 1)

ate, Kenneth Reid '18, have been instrumental in placing in positions of one making it possible for persons attendkind and another a very large number of the recent graduates; and the Division office is the point of contact for former students who are looking for positions, and for employers who are seeking to hire scientifically and technically trained men. Professor Norton is also able to speak from the point of view of an employer and technical man because he has been for years the president of a half-dozen manufacturing enterprises, and has had an opportunity to hire a great many of the Institute graduates both from the scientific and engineering departments.

Many Graduates Change Work

"The element of chance governs to a large extent the course which a student chooses," said Professor Norton "I took Course VI because my father was a close friend of Thomas A. Edison, which decided him that I must be an electrical engineer. One of the best electrical engineers in the profession was a graduate in Mining, and one of the best instrument makers started out to be a Naval Architect. A recent graduate of Chemistry was hired by a large chemical company, but so far as I know he has never done a bit of chemical work for them, and probably won't as he is now general manager. This all goes to show that what a student thinks will be his life work is often entirely changed by events after

Describes Science Courses "The departments which cannot properly be classed at the Institute as engineering departments include Architecture, Chemistry, Biology and Pub-lic Health, Physics, General Science, and Geology. Architecture is a fascinating field in which to work, and since the architect must frequently build with limited funds and in strict accordaily in the matter of our chemical dance with the wishes of those for whom the building is being built, he sicist as merely a teacher of physics must combine with a fine artistic sense, needs to be entirely altered, and you sound business judgment and more or now find physicists in positions in conless psychology. Technology was very trol of operations and development, and early in the field of training men for research laboratories just as we found work in connection with the biological chemists occupying positions of this phases of public health work, and it order a generation ago. has been actively concerned in the large Professor Norton emph

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UNDERGRADUATE

BIBLE STUDY GROUPS

All T. C. A. bible study groups will meet this Friday at 4 P.M., in 10-275. Professor Bowman will discuss certain

material for the first ten minutes of

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FOR LUNCHEON COME TO

Several pay checks for summer camp and the first term are still on hand.

INVITATION IS GIVEN THE CIVIL ENGINEERS

Meeting Ends Early for Sake of Convenience

At a meeting of the Designer's Section of the Boston Society of Civil Engineers to be held this evening in Myer's Hall, Tremont Temple, several papers of interest to students of civil engineering will be read. The meeting will begin at 6 o'clock and end at 8

ing to meet other engagements.

The title of the first paper will be "The Construction of Neponset Bridge," which will be given by J. Stuart Crandall. This will be followed by "The Design of Supports for Super-posed Chimneys for Power Houses," by W. Clifford '09. The third speaker W. D. Henderson, will take as his sub-"Structural Design Features of o-Electric Development." The Hydro-Electric Development." papers will be illustrated by slides. The design section has extended its invitation to any Institute students interested

and is desirous of a large delegation.

These subjects are of practical interest to all civil engineers studying structural design of bridges, power plants, and hydro-electric developments. Mechanical and electrical, designing and operating engineers will also find much to interest them at this meeting.
"The course in General Science, IX-

A, was re-established only a few years ago in answer to a number of appeals eral resources of the world and the realization of the nature of conserving our natural supplies of such things as petroleum, has greatly stimulated interest in the geological sciences, and emphasized their importance.

that there be offered a course in general science which might be taken by men who were not intending to practice either as chemists, physicists, geologists or biologists, but desired a reasonable familiarity with all these branches of science. This course is frequently taken by men who desire to specialize in some particular field, and utilize this course to build upon because of the large allowance of electives during the third and fourth years.

The men who have graduated in chemistry, particularly in recent years, are finding themselves in a very favorable circumstance because of the enormous development and the rapid advances which are being made almost knowledge. Our old idea of the phy-

Professor Norton emphasizes the deindustries such as tanning, food preser-| sirability of the student endeavoring to vation, manufacture of fertilizers, and determine the particular sort of work in Runkle, 16 more recently the fisheries industry which he will be happy and contented. The increasing importance of the min- if he hopes to be successful.

Much Power Yet Undeveloped in Lakes Vicinity

Work in Great Lakes Region Shows Much Unused Power To Be Available

Government engineers have recently completed a water power survey of the Great Salt Lake Basin to determine the amount of power that might be utilized by hydro-electric developments. The high cost of power depending on high priced coal and the advantages in economy to be derived from super power systems has increased the attention given these potential sources of power.

A reliable estimate of the available water supply is the first requisite in an investigation. An eminent hydraulic engineer has testified before a Senate committee that failure of water supply has led to more financial failures in this field than any other single cause. The U. S. Geological Survey has gathered data on stream flow for over thirty years and has published about 500 volumes with records of these tests. These reports are available to the public.

Not only is data on flow furnished but river profiles, topographic and geological maps have been published. many cases the potential power available and the cost and best method of development have been included.

The Salt Lake report just made shows over 100,000 horsepower still undeveloped in this region. That much work has already been done is shown by the fact hat the capacity of water power plants in the Basin has increased from 14,000 to 225,000 horsepower in 23 years. Several undeveloped sites on the Bear, Logan and Weber rivers are described.

The statistics given in the report are chiefly for unregulated flow and much more power could be obtained with regulation. Power is not the only source of income to a hydro electric company in the Salt Lake Basin for the water can be used for irrigation purposes after it has been used as a source of power.

Dorm Sports

BOWLING February 9

Clarke, 3 Nichols, 3

Atkins, 1 "93", 1 Holman, 0

BASKETBALL February 9

Outlaws, 2 February 10

"93", 115

Nichols, Crafts, 11

SPLASHES

(Continued from Page 3)

ing the past summer, so had an easy time winning this event. It was a tossup for second place between Monney and Wood. Many of the spectators differed with the judges' decision in giving Monney second place.

A humorous touch was added to the meet in the 50 yard dash, in which Armstrong was the leading Engineer entry. The Orange mermen have a ninety foot pool, which makes it necessary to end the fifty at a rope stretched across the pool. ciety next Thursday afternoon. The The men that were holding the rope held party will meet in building 5 at the it too high, so that Armstrong did not Pratt Museum. The trip is open to know that he was finished, and continued his made dash for the remaining ten yards all by himself.

> Several very interesting sidelights have turned up in the last couple of days in connection with the swimming team's trip to Syracuse.

Perhaps the most notable was the fine exhibition of Ralph Johnson, swimming on the relay and in the 100 yard backstroke. On the trip to Syracuse, he was taken ill, but announced that he would be able to swim. He did swim two dandy races, being leadoff man on the relay which won, and taking second place in the backstroke. When he came out of the water after the backstroke, it was found that he had a temperature of 102. At the hospital it was announced that he had a mild attack of influenza, making it necessary for him to remain in Syracuse.

JEWELRY AMASSED IN MAJOR SMITH'S OFFICE

That Technology men either don't care much about their jewelry or are very careless is shown by the collection in the lost and found department inforaml dance tomorrow evening in of the Superintendant of Buildings. Walker. Bert Lowe's orchestra will The collection includes everything from fountain pens and pencils to fobs, rings and frat pins.

The number of books is undiminished despite the fact that books are only kept one month if uncalled for and then are sent to the T. C. A. Only recently the number of overcoats, hats, etc., became so great they had to be removed.

MARX BROTHERS BACK WITH "I'LL SAY SHE IS"

(Continued from Page 2)

and Walters, acrobatic and classic dancers, Carlotta Miles and Lloyd Garrett by virtue of their uncommonly good singing, and the irrepressible jazz personification, Hazel Gaudreau. The conknock-down-and-drag-out Apache dance was done with all the fierceness necessary by D'Andrea and

Generally the work of the chorus was mediocre and not up to the standard of the remainder of the show. Some of the scenes were well conceived notably the marble fountain (reworked by the censors) and the Wall Street scene with its showering streamers. The costuming was variagated and coloful and without extreme ostentation. Altogether it is a splendid olla poridra with a rare and generous supply of comedy only to be produced by Marx number 1, 2, 3, and 4. These adroit clowns are irresistible, at least to the audience-but adieu lest these men are praised endlessly.

SIXTH HANDICAP MEET TO BE HELD SATURDAY

(Continued from Page 3)

meets on the past few Saturdays so that regular track men have not been having the benefits of the competition in the handicap games.

Another meet will be held the Saturday following Saturday of this week. The coaches are developing some good materal and now that the winter season is rapidly drawing to a close, men are looking forward to the field events of the spring season.

The premier track contest of the spring season will be, as usual, the New England Intercollegiate A. A. track meet which will again be held on Tech Field. The committee in charge announced re-cently that the date for the games has

been fixed as May 22 and 23.

In addition to the regular varsity engagements which have featured past New England track meets there is still a possibility that a freshman cross country run will be staged in addition to the regular varsity event. The matter was held over for further consideration until the meeting of the committee next

CREW PLANS TWO MORE RACES WITH HARVARD

(Continued from Page 3)

have been going through some very stiff training. Immediately after a fast workout on the machines they take a short sprint. Bill has been working consistently with the Varsity, Junior Varsity, and 150 pound Varsity and numerous changes have been made. None of the crews are at all permanent and as to who will fill the shells when they take to the water is quite undecided.

Undoubtedly many more men will start to come out for the sport just as soon as the warm weather arrives to stay. At that time it is too late. There are yet five weeks left of this term, and during this time new material can be whipped into fairly good shape if handled by Bill Haines. The managers emphasize that there is yet room for men on any one of the crews and men are urged to report at the boathouse now in order to be ready for the water later.



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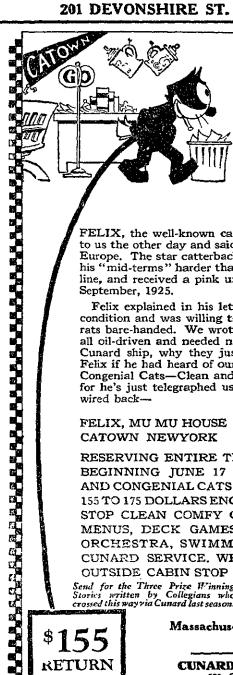
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BOSTON



has decided to go to Europe

FELIX, the well-known catawumpus of the screen, wrote to us the other day and said he wanted to work his way to Europe. The star catterback of the Catown eleven crashed his "mid-terms" harder than he ever hit an opposing feline line, and received a pink unconditional release, good until FELIX, the well-known catawumpus of the screen, wrote line, and received a pink unconditional release, good until September, 1925.

Felix explained in his letter that he was in the pink of condition and was willing to stoke, peel potatoes, or catch rats bare-handed. We wrote Felix that Cunard ships were all oil-driven and needed no stokers, and as for rats on a Cunard ship, why they just didn't exist. We also asked Felix if he had heard of our new College Cabin service for Congenial Cats-Clean and Comfy. Evidently he hadn't, for he's just telegraphed us to "send him the dope." We wired back-

11 FEBRUARY 1925

FELIX, MU MU HOUSE CATOWN NEWYORK RESERVING ENTIRE THIRD CLASS EIGHT SHIPS

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TECH SHOW ORCHESTRA REHEARSAL

Notices and Announcements

There will be a rehearsal of Orchestra tonight in North Hall, Walker at

NAVAL ARCHITECTURE SOCIETY TRIP

A trip to the Leviathan will be conducted by the Naval Architectural Soanyone interested.

CIVIL ENGINEERS

Lecture illustrated with slides will be given on Friday Febuary 13, in Main Hall, Walker, at 7.00. There will be eats and smokes.

OUTING CLUB

There will be a trip to Mt. Monad-noch over the 22 of February. Good snowshoeing. Bulletin in basement of building 3 for details.

CIRCUS COMMITTEE

The Circus Committee will meet at o'clock Thursday afternoon in the committee room, Walker instead of 8 o'clock as scheduled.

WANDERING GREEKS

Wandering Greeks, please make you. presence at the Institute known by signing the book placed in the mail lobby near the Cashier's Office if you have not already done so.

SOPHOMORE HOP

The Sophomore class will hold an furnish the music.

WALKER MEMORIAL COMMITTEE

Competition for freshman members will start today. Report at the Com-mittee office between 12 and 2.

Official Undergraduate News Organ of Technology

Vol. XLIV No. 83

CAMBRIDGE, MASS., FRIDAY, FEBRUARY 13, 1925

Five Cents

ANNOUNCE RESULTS OF ELECTIONS FOR 1925 SENIOR WEEK

Austin Cole, Jr., F. W. Greer, and G. C. Caine Are Class Day Marshals

ONLY 240 SENIORS VOTE

Twenty-two Votes Cast Out For Incorrect Marking-Vote Remarkably Small

Austin Cole, Jr., F. W. Greer, and G. C. Caine of the Class of 1925 were elected Class Day marshals in the elections held Wednesday. Twenty-five Seniors were elected at the same time to the Senior Week Committee. These elections were ratified at the Institute Committee

Meeting last night. A total of 240 votes were cast. Of these, 22 were cast out because they were incorrectly marked. The number was much smaller than had been expected. as the polls were held in the Main Lobby in order to be convenient for everyone.

Cole is chairman of the Walker Memorial Committee, a member of the Executive Committee of the Institute Committee, and a member of the Circus Committee in charge of ring stunts. Greer is secretary of the Institute Committee, and has been for two years captain of the wrestling team. He is a member of Osiris and a member of the governing board of the Mechanical Engineering Society. In his freshman year he was a member of the Field Day Tug of War team. Caine is a member of the Basketball Team, and has been on the track team. He is chairman of the Point System Committee and a member of the Class Endowment Fund Committee. At the last Field Day he was one of the marshals. He is a member of Tau Beta Pi and of Theta Tau.

Debating Team Motion Passed At the Institute Committee meeting, a motion was passed to permit the Debating Team to use the Institute's name. In connection with this motion, chairman Bateman announced that the team, which is now a general study, had arranged a debate with Oregon State for April 14. Oregon claims to be Champion of the West Coast. The debate will be held

A motion was also passed to recognize the Pistol Club as a class activity.

The following men were elected to the Senior Week Committee: R. C. Ashworth, Jr., J. E. Black, G. C. Caine, G. A. Drew, Scott Emerson, P. B. Goble, F. W. Greer, A. G. Hall, H. C. Hoar, J. H. Hooks, D. H. Keck, Alfred Kulleng, A. A. Lourin Worner, Lun. Kullman, A. A. Lauria, Warner Lumbard, J. F. McIndoe, R. A. Mitchell, C. R. Muhlcheberg, E. D. Murphy, W. W. Northrop, P. C. Niles, R. P. Pricc, A. H. Stanton, R. W. Tryon, Roger Ward, and H. E. Weihmiller, Jr.

LEVIATHAN VISITED BY MANY ARCHITECTURALS

Large Number of Students Are Not Permitted on Ship

evidenced a short time ago when the trip to the Leviathan was announced. Arrangements had been made to allow a small party of forty students to vis it the ship, but about twice that number succeeded in passing the dockyard gates. Hopes thus raised were doomed to be of short duration, however, for no sooner had admittance to the ship been gained than the roll was called and non-members were requested to

Captain Hartley said it would be impossible to allow so many aboard, since they would interfere with the workmen. The non-members consoled them selves with viewing the ship from the outside, and later going down into the drydock to get a close up of the pro-

pellors and rudder.
The Leviathan is in dock for only a short period, to receive an annua overhauling. The bottom is being repainted, the ventilating system renewed and repairs are in progress on one of the expansion joints on the "B. deck" where the plating has cracked. The four bladed propellors are being replaced by new propellors of three blades which are expected to give the same speed of 24-25 knots with a reduction in horsepower. The last sec tion of the starboard inner propellor shaft is also being replaced.

DEISEL ENGINE EXPERT VISITS THE INSTITUTE

G. W. Craven. '98, Vice President of Climax Engineering Company of Clinton, Iowa was the guest of the Department of Mechanical Engineering last Wednesday when he was shown over the Institute by Professor E. W. Miller '86.

After the inspection of the Institute, a party consisting of Professor Miller, Professor D. A. Fales, 15, Professor R. H. Smith, and Mr. Craven lunched at Walker. The prime reason for Mr. Craven's presence at the Institute was to seek admission for his son who intends to enter here in a few years.

Mr. Craven is a prominent manufacturer of Diesel engines, and is consided as an authority on the Internal Combustion Engine.

CORPORATION MEN TO HEAR MANNING

Novelty Features Assured For Smoker Tuesday Night In North Hall

Corporation XV will hold its first meeting of the term on Tuesday at 7.45 in North Hall, Walker. The meeting will be patterned on the smoker meet- as "Who of the class of 1926 is the

The speakers of the evening are E. G. Manning of the Paul Clark agency of the John Hancock Life Insurance Company and G. C. Frolich of the United Drug Company. Mr. Frolich is already known to the Course XV Seniors through his lectures of last term given as part of the regular course in Business Management. His lectures proved so popular with his classes that several of his students suggested his appearance at a meeting of Corporation XV.

Mr. Manning is to give a demonstration the nature of which was not div ulged by the members of the committee in order that it be a novelty feature to the audience. The committee hopes to have a large attendance present and has invited all students not members of Corporation XV to attend the meeting.

NEXT SCIENCE LECTURE WILL BE GIVEN SUNDAY

Professor Page Will Deliver Third Talk of Series

The third of the four popular sci ence lectures will be given Sunday af ternoon, February 15 at four o'clock in room 10-250. The lecture will be given by Professor H. C. Page of the Department of Physics.

This lecture will be on much the sam material that Professor Page gives to the Sophomores in their Physics lectures, except that the presentation wil e in a much more popular manner the mathematics being omitted.

The history of the vacuum tube will be traced, from the first Geissler tubes to the wide variety of tubes used today These tubes cover a wide range now taking in x-ray apparatus, mercury va-A sudden wave of popularity for the and radio bulbs. A good deal of work Naval Architectural Society became was done to use gas filled to be evidenced a short time age. was done to use gas filled tubes for electric lights. Just about the time that they were perfected so that they could be used, the tungsten light was By introducing different gases as filler, the light produced can be made to be almost any of the spectrum. In this form, they are sometimes used in colored signs, a few of which are installed in Boston.

MUSICAL CLUBS GIVE CONCERT AND A DANCE

Lowell will be the scene of the next local concert by the Combined Musical Clubs, tonight. The concert is sponsored by the Merrimac Valley Technology Club. This is the fact time in nology Club. This is the first time in several years that the Clubs have given a public concert in Lowell.

from 8 to 9.30 o'clock, and a dance can give the Varsity breast strokers a will follow until one. At the dance will be many students from Rogers Hall School, a finishing school in Lowell.

The dance will be held in Liberty Hall of the Lowell Memorial auditorium. Buses will leave the corner of Beacon Street and Massachusetts Ave- which made his muscles awkward. At nue at 5.45 o'clock, and the corner of this time, he is beginning to get the Charles River Road and Massachusetts Avenue five minutes later.

TECHNIQUE SENDS **QUESTIONNAIRE TO** ALL OF JUNIORS

Juniors Are Expected to Answer The Forty Questions By Next Friday

PRIZE FOR BEST ANSWERS

Over One-half of Institute Signed For 1925 Technique Last Week

Technique expects to discover Who's Who and What's What in Technology by means of a questionnaire mailed yesterday to all Juniors. The list contains forty questions relating to the status of various persons, things and conditions at the Institute. Humorous answers are expected and the person presenting the "most clever compendium" will receive a copy of the year book. Answers are to be mailed to Technique before February 20.

Questions vary from the personal questions "What is your favorite girl's school?"; "When do you expect to marry?"; and "How well do you know the Dean?" to general questions such as "Who of the class of 1926 is the ings held in the past but some novel-ties will be introduced to render the affair more attractive. most popular with the class, with the faculty, with the 'femmes,' with him-self?": "Who is the best parlor athlete and who is the best physical ath-lete?"; and "Who has been our most prominent brown bagger?

Most Fatherly Junior Wanted Prominent members of the class of 1926 will become known when their class mates register the class opinion as to who is the most useful, the most useless, the most likely and the least likely to graduate, the most fatherly, the hardest worker, and the best bluf fer. The owner of the best moustache and the name of the laziest professor at the Institute will be revealed by the

Half of the school signed up for Technique in the campaign last week, about 200 more than subscribed last largest revolving machinery in the will be turned over to the committee. year. The registration book for Wan- world. These huge steel tubes, lined Armory Not Yet Certain dering Greeks is still in the main lobby near the cashier's office, but it will soon be removed. Wandering Greeks who have not done so are asked to sign at

Freshmen to Meet Worcester Team In Rivals' Tank

Have Excellent Chance To Win From Academy Tankmen Tomorrow

On Saturday, the frosh swimming team will journey to Worcester to meet the mermen of Worcester Academy The last two weeks the freshmen have met a couple of strong teams in Andover and Exeter, so have not been able to show up very well. Both of these teams could easily beat most of the college teams in the country at the presindication of the freshman strength.

At Worcester, the freshman team should be able to make a very creditable showing. There are several promising swimmers on the team just at present that should be able to come through with a win against the Academy swimmers. Captain Grover of the frosh has been going great the last few weeks and should be able to win both the 50 and the 100 yd. swim without much trouble. At the meet with Andover two weeks ago, he established a new record in the 100 yard swim, which shows what he is capable of

Dive Will be Interesting

The frosh also have a couple of fine breast strokers in Puschin and Jordan. Puschin has not been swimming in the last few meets, and it is not certain that he will swim against Worcester, n a public concert in Lowell.

As usual, the concert will be held through with a win. All of these men good race in the 100 yard breast stroke.

The dives are well taken care of by Brown, who has shown up excellently in this event all during the season. Up till the beginning of the season, Brown had not been diving for over a year,

(Continued on Page 4)

SUMMER R.O.T.C. CAMPS ARE NOW DECIDED ON

Summer camps of the R. O. T. C. have been decided upon according to information received by the Military Science Department. The Coast Artillery will be located at Fort Monroe, Virginia. The Air Service will be at Langley Field, Virginia. Fort Monroe and Langley Field are sea-ports, both near Hampton Roads and Norfolk.

Engineers are to be at Camp Devens while Signal Corps will be at Camp Vail, New Jersey. Camp Vail is a short distance from the New Jersey shore. Ordnance and Chemical Warfare will be at Aberdeen Proving Grounds and Edgewood Arsenal, Mary land, respectively. Aberdeen is on Chescapeake Bay with Edgewood nearby.

Except in the case of the Engineer unit which will open June 19, the exact dates for the openings have not been decided on. It is probable, however that June 19 will be decided on for the other camps also.

HOW TO FILL BAGS AFTER BEING TIED

Number of Tricks of the Game Shown at Last Week's Cement Movie

A short moving picture was shown on the manufacture of Portland cement at last Wednesday's Mechanical Socie ty weekly movie in room 5-330.

It was shown how the top soil is re moved, numbers of holes drilled for the blast, and then the whole hillside was seen to crash. The chemist takes an analysis of the material from the drill holes, so that the composition is known before the rock is even blasted. The huge crushing mills were shown in operation, the rock being first put through a crusher like a coffee mill, with a very refractory material, were shown in actual operation. The camera film, the whiteness of the almost molten | ties

Chemist Plays Part The chemist analyzes the dust as it is coming towards the burners, and adjusts automatic weighing machines These combine the material in just the proper proportion, shutting off the feed when the quantity tips the scales. An interesting part of the process is the filling of the bags. The cement bags are tied, and then filled. By means of an ingenious method of sewing, small flap is left at the bottom. A tube is run into the bag, and the ninety-six pounds of cement is forced in. The filling device shuts off as soon as the above weight is reached.

A brief glimpse was shown of the cement testing laboratory where the physicist does his work. The operation s much the same as that employed in the testing laboratory at the Insti-Small briquettes are made and ent time, so a loss against them is no after seven and twenty-eight days va-

Continued on Page 4

CHEMICAL SOCIETY TO MEET TODAY IN 5-330

Several internationally famous speakers have been secured to address the Chemical Engineering Society at their smoker tonight. The smoker will be preceded by an informal dinner served at six o'clock in Walker, the tickets costing \$1.25 a plate. The meeting proper begins at 7.30 o'clock, in room

Professor P. Debye of the University of Zurich, who is now a guest lecturer at the Institute, will speak on "The Scattering of X-rays and Atomic Structure." Dr. W. P. Davey, of the Research Laboratory, General Electric Company, will give "The Analysis and Significance of Crystal Structures as Determined by X-rays." The director of research at the Watertown Arsenal, Dr. H. H. Lester, will speak on "The Nature of X-rays, Radiography, and X-ray Diffusion as Applied to the Problems of the Industrial Laboratory."

This will be the only opportunity to hear Professor Debye speak before any section of the American Chemical So-

INTERFRATERNITY **CONFERENCE GIVES** THE CIRCUS \$100

Surplus From Last Year's Prom Committee Also Donated It Is Announced

PLANS PROGRESSING WELL

Question of Availability of The Armory Will Be Soon Settled

"The success of the circus," declared H. C. Hoar '25, General Chairman of the Circus Committee, at a meeting of the committee vesterday afternoon, "is greatly dependent on the number of individual acts, and acts by unsolicited groups, that are staged."

As yet only one man has notified C. E. Petze 25. Manager of Unorganized Groups and Individuals, of his intention of putting on an individual act. A large number of booths is already assured, but a number of specialties will be necessary to diversify the affair. Petze is anxious to have an ample number of the latter, and those who can make up as clowns or stage a Boob McNutt act will be very welcome. Circus Donated \$130

According to the reports of the various committee managers, the plans of the fraternities, dormitories, societies, activities, are progressing very favorably. Twenty-two fraternities out of about 28, have signified their intention of putting up a booth, and a number of these have already started work on their stunts.

The finances of the circus have been definitely put on a firm basis, due to the gift of the Inter-Fraternity Conthen fed under revolving hammers, fin-ally being made flour fine by being \$100. Last year's Junior Prom Com-tumbled with steel balls in a revolving mittee has also notified the committee cylinder. The baking kilns are the that there is a surplus of \$30 which

The authorities at the Cambridge Armory on Massachusetts Avenue have had to be protected by special means promised the committee verbally that to prevent the intense heat from ignit- the armory will be available February ing the film. Even on the uncolored 27. The sanction of the state authorihowever must first be obtained becement could be seen as chunks fell fore the armory can be rented. An and tumbled about with the rotation application has been made to the state, and the question as to whether the circus can be staged in the armory will be definitely decided in a few

(Continued on Page 4)

TECH REPRESENTED BY MEN AT CONFERENCE

"The Christian Way of Life" will be the topic of discussion at the New England Student Conference which will be attended by nine Technology men. The Conference will be held at East Northfield, Massachusetts, tomorrow, Saturday and Sunday. There will be over 200 delegates from the different New England colleges present. This is the third annual Conference conducted by the Christian Associations of the colleges. Each college is given a definite

The Institute will be represented by D. H. Keck '25, Chairman; J. W. Chamberlain '28, R. S. Harris '28, C. A. Harrison '26, J. H. Hooks '25, W. L. Jones '25, W. C. Noell '26, G. V. Patrick '28, and W. M. Ross. The delegation will leave tomorrow at 11.15, the first meeting of the conference being held iming of the conference being held immediately after dinner Friday night, and will return Sunday night.

CALENDAR

Friday, February 13

7:00-Civil Engineering Society smoker, main hall, Walker. 7:30-Tech Show rehearsal.

6:00-Dinner of Chemical Society in Walker.

7:30-Meeting of Chemical Society in 5-330. Sunday, February 15

2:30-Popular Science lecture by Professor Page.

Monday, February 16 4:00—T.C.A. cabinet meeting at 4 in rear office. Tuesday, February 17

:30-Radio Society talk. Wednesday, February 18 4:00-Mechanical Engineering Society movies in

Thursday, February 19 11:00-Freshman lecture in 10-250. Friday, February 20 8:00-Military Ball in Walker in uniform. A Record of Continuous News Service for 43 Years



Official News
Organ of the
Undergratuates
of Technology

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In charge of this issue:	L. C. Currier '26

PILE DRIVERS AND BATTERING RAMS

ONE glance at the grass on various parts of the Institute grounds bespeaks the worst epidemic of laziness that has been evident among the students in a long time. At every possible corner and short cut all traces of grass are being obliterated by tramping, battering, thoughtless feet.

The condition demands your attention immediately. For years there has been an insistent cry for improved grounds. The Great Court Grouches have complained and cursed over the barren waste. And now through indolent thoughtlessness many of these same men are disfiguring what improvements have been made.

Preserve the grass if you have any esthetic sense, any idea of the fitness of things, if your feet are small enough to be contained upon the board walks. The grass will be utterly ruined if it is tramped in the damp and soggy earth. There is absolutely no excuse for anything of the sort occuring, for no one is in such a hurry or is so inveterately lazy that he cannot refrain from taking short-cuts. It is hoped that the students will severely censure any men seen doing this.

THE INTERFRATERNITY CONFERENCE DONATION

THE act of the Interfraternity Conference Wednesday evening in donating one hundred dollars to the circus fund is to be commended. It evinces a spirit of co-operation and generosity on the part of the fraternities with respect to activities embracing the entire student body.

The donation also insures a much better circus than otherwise could have been given. The rental of the armory is costly, and there are many other expense factors. A circus of real dimensions and realistic ostentation is possible now that this gift has been received.

A NOTEWORTHY EXAMPLE

THE ubiquitous and all-too-numerous critics of our athletic teams would do well to consider the high standard of sportsmanship, spirit, and grit established by a member of the swimming team at the meet at Syracuse. Before the test this swimmer remarked that he was not feeling his best, but he made no complaint, and went into the meet without a murmur. Not only this, but he distinguished himself, swimming anchor man in the relay, which we won, and placing second in the backstroke. He had a fever when he finished the last event, and is still laid up in Syracuse.

It shows a mighty fine kind of grit for a man to keep quiet and go on with his events as this swimmer did, and his act shows that spirit is by no means lacking on the teams. The trouble is that the lack of spirit is all on the outside. There is plenty of spirit among the men in athletics, but a very decided lack of it outside. If a man does not go out for athletics himself, he at least can support the teams to the best of his ability. What the Institute needs, and must have, in everything, as well as athletics, is a radical change from the present inert, lifeless, and disparaging attitude of the majority of the student body. Get behind and push, instead of standing off one side and knocking.

THE JOLLY JUNIOR YEAR

A T Hamilton College, a vote was taken among the Seniors to determine which year had been the best, not only as to pleasures, but as to actual experience and education. The third year was chosen as the year that means most "because the student has passed from the in-the-fog feeling of his freshman year, and the cocksure careless attitude of the sophomore year, and has come to the realization of what a higher education means to a man."

This agrees fairly well with underdergraduate opinion at the Institute, as far as we have been able to discover through an informal canvass of friends and classmates. It is unfortunate, however, that seniors should not think their final year the most important. It may be in part due to their increased knowledge that enables them to see just how little they really know after all. It may be because they have done a bit more thinking and a bit more work. It may be because they are not willing to leave the institution to which they have become so endeared in the course of their college career.

Be the reason what it may, the fact remains that college men get more pleasure out of their blissful though foggy earlier years. Although it seems a pity that they are somewhat disappointed with their last year, it may not of necessity prove that they are finding flaws in our educational system, merely that on the strength of their longer experience, they are able to think a bit more about the serious things that they formerly passed over too lightly.



Someone has propounded the theory that the men walking on the verdure have feet so big that they cannot keep them upon the board walks. The hypothesis is probably accurate, for the Lounger can conceive of no other reason why a man in a strong and healthy mental state could act so asininely. The Lounger is so optimistic that he believes that this little note will get a rise out of the culpable boneheads.

The Loungorial Headquarters is pleased to hear that the children in Heat 2.42 have calmed down somewhat. A rowdy, buccaneering crew they have been, nursery-like, and foolish. And when they were not playing, they were sleeping.

It has also been reported that the atmospheric conditions in 10-250 are greatly improved. The percentage decrease in sleepers has been correspondingly great. The Lounger can vouch for the fact that a gentle breeze was ssuing forth from some of the ventilators. Bravo!

Shades of Beau Brummel and Happy Hooligan! Again the Faculty has tried to startle us with their habiliments. One prof went so far as to turn up in a regular Arrow Collar advertisement get-up—wing collar and polka dot blue necktie. One of his comrades went to the other extreme and went to class with its cravat untied. The Lounger wishes they'd hit the happy medium and look half way respectable all the time.

The janitorial service is getting pretty efficient now days—if the students worked as hard, the Faculty would have to invent a new mark to rate above the "H." It is getting so that the janitors are in o clean off the blackboards almost as oon as the profs write anything on them. The Lounger respectfully suggests to the revered, honored and august raculty that a degree of "Master of Erasers" be awarded to each of our white coated friends.

Geology lectures are rapidly becoming classes in parlor magic. Models are being used to explain faulting. The professor pulls some of the most mystifying stunts ever seen off the stage. A case of now you see them, and now you don't. The hand is quicker than the eye!

Tis rumored that a day or so ago, after a co-ed, apparently heavily scented passed in rear of a lecturer, said prof niffed hungrily and murmured "The air is certainly getting better now-a-days!"

Apparently it is not enough that we should suffer from an outburst of weather which is even pretty bad for Boston. To add to the general wetness the Technique questionnaire has made its appearance. This year it carries a line on the front long enough to reach around the earth at least several times, and heavy enough to sink the most impervious. Now we know why the questionnaire does not come out until well along in the winter term—it takes them so long to think it up.

The questions offer an unparallelled opportunity to our would-be wits to do their stuff. There is a certain low type of mind which always takes fiendish delight in thinking up fool answers to sane questions, and now that they have Technique's insane queries to play with, joy should reign supreme. The results ought to be amusing though, and enlightening, too, since some of the questions really are "soul searching," as advertised.

But hold! On turning to the back page of this inquisitive document the Lounger is confronted with a question which seems unusually pointed. To ask "What should be done to THE TECH?" seems like an unnecessarily dirty dig, and most ungrateful. Personally the Lounger is quite pleased at it, because it looks as if the more or less erudite composers of 'Snique were afraid the Lounger would disdain to notice their old questionnaire at all—hence they put in the question to try and get a rise. They did, but not for the reason they thought of.

Play Directory

COLONIAL: Ziegfeld Follies. "Usual eye and ear entertainment."

COPLEY: "Androcles and the Lion." Shaw takes us back a few centuries.

HOLLIS: "Meet the Wife." Not so bad. Rather funny.

PLYMOUTH: "Grounds for Divorce." Sparkling with subtle humor.

MAJESTIC: "I'll Say She Is." The brothers Marx amuse.

NEW PARK: "New Brooms." Frank Craven and his comedy.

ST. JAMES: "The Misleading Lady." A play that makes one laugh.

SELWYN: "White Cargo." Africa at her best or worst.

SHUBERT: Greenwich Village Follies. Most attractive—part of the time.

TREMONT: "Be Yourself." Music, dancing, and Queenie Smith.

WILBUR: "Beggar on Horseback." Delightfully different satire.

Communications

To the Editor of THE TECH:

The editorial, "Conditions at the Boat House," in THE TECH of Feb. 9th has a rather one sided point of view. It is true that the Institute and Alumni have put a lot of money into crew. It is also true that we have the best coach in the country. That coach is not hampered nearly as much by poor mechanical facilities as he is by a lack of men to use those facilities.

There is enough hot water for every one if the few who use it early in the afternoon would show a little thought for those who come later. It is not unheard of for a man to go off and leave the showers running. The Institute cannot help such conditions as this if the fellows themselves will not cooperate.

At Cornell the men have to walk two miles of a lot worse walking than any in Cambridge. At Yale it is about an eight mile bus ride. At Syracuse it is a longer trolley ride with a half mile walk on country roads at the end. Even if we had a bus, so few return to the Institute it would be out of the question to run it more than one way and with the small number now out for crew it is doubtful if it would pay even then.

With the fellows rowing at the Boat House there is a great deal better spirit and higher morale than could be possible if they were to practice in the gym. That scheme was thoroughly gone over a year ago and rejected.

As for the launches, they have been given to the Institute by interested Alumni and it is hardly fitting that we should show our appreciation by publicly denouncing their qualities.

The editorial in Monday's Tech was

The editorial in Monday's Tech was in no way an expression of the feelings of the men at the Boat House. Those who benefit by what the Institute and Alumni have done for crew in the past few years are well aware that the rowing facilities at the Institute compare very favorably with those of other institutions.

(Signed)
William H. Latham '26.
Acting Captain of Crew.

To the Editor of THE TECH:

There is circulating about the Institute a rumor that Pi Delta Epsilon, a national honorary journalistic fraternity, is to issue another FILTER PAPER. In behalf of the Technology Chapter, I wish to state that such is not the case.

After several unsuccessful attempts to put out a razz sheet that would be beneficial to Technology, we have at last given up the battle. We do not believe that the Institute has a place for a scandal sheet. Let me add, too, that the name "FILTER PAPER" has been copyrighted by us and that any infringement on this right by any organization will lead to legal proceed-

(Signed)
Donald A. Henderson,

President. M. I. T. Chapter Pi Delta Epsilon.

STUDENTS SMOKE AIR IN PLACE OF TOBACCO

Students Unable to Distinguish Between Smoke and Air

Professor Hull, of the Psychology Department of the University of Wisconsin has just published the results of a series of tests to determine the effect of to-bacco smoking upon one's mental and motor efficiency. Nineteen young men were used, ten of whom had not smoked, and nine who smoke regularly. Of the smokers, all but two were pipe users. They were blindfolded, and each man smoked for a certain time each day for eighteen consecutive days in a small room. Half the time they were given pipes filled with tobacco, and the other half, they smoked pure hot air, created by an electric heating coil within the bowl.

Of the nineteen subjects, only one was able to detect the difference between the hot air and the tobacco smoke. It has long been known that the difference between hot air and real intellect is not always as obvious as it might be, but it is indeed surprising to note how few people can distinguish between smoke and pure air. If too many men learned that they could get as much pleasure out of smoking air as they could from pure tobacco, the tobacco raisers would soon be forced out of business!



Intercollegiates

WHY STUDENTS FAIL

Too little sleep, too much play, not enough study, too much leisure, fast eating and diversified thinking are factors that devitalize students and are responsible for the "delinquent groups" found in every university, according to a report made public by Professor Howard of Northwestern University.

Princeton's Sophomores were given a jolt when the faculty enforced the ruling that all Sophomores who flunked in the Sophomore year must eat in the college "commons."

The coach of the Kansas State College basketball squad is selecting his best players by giving them a psychology test.

Every year the students of Hood College put aside one day to get together to straighten out their financial relations with one another.

Church Directory

TRINITY CHURCH, Boston

Sunday, Feb. 15.
8:00 A.M.—Young People's Corporate Communion.

10:00 A.M.—Young People's Class.
11:00 A.M.—Morning Prayer and Sermon by Rev. Roland Cotton Smith, D.D.
4:00 P.M.—Service and Address by Rev. Arthur O. Phinney.

7:30 P.M.—Service and Address by Rev. John Ridout.

PROSPECT STREET CONGREGATIONAL CHURCH—Two blocks from Central Sq., Pastor, Rev. W. M. Macnair.
Sunday, Feb. 15.

10:30 A.M.—Morning worship. Sermon: "How to be a Whole Man."
12:10 P.M.—Prospect Class of Men and Triangle Class of younger men meet.
7:30 P.M.—Evening service. Lessons from the Psalms: "Why do the heathen rage," and "Why does God Laugh?" Psalm 2.
The Prospect Class of men is planning a minstrel show and musical entertainment. Tech men who can lend a hand are welcome.

MT. VERNON CHURCH—Beacon St. and Mass. Ave., Rev. Sidney Lovett, Minister. Sunday. Feb. 15.

Sunday, Feb. 15.

11:00 A.M.—Morning Worship, Mr. Lovett

will preach.

12:30 P.M.—Bible Discussion Group.

7:30 P.M.—Young People's Society. Mr.

Lovett will introduce the topic, "What
and Where Is God?"

TEMPLE ISRAEL-Commonwealth Ave. at

Blanchard St., Boston.
Sat., Feb. 14—10:30 A.M.—Rabbi Wolk,
"Speaking with Authority."
Sun., Feb. 15—11:00 A.M.—Rabbi Levi,
"Crystallized Lies."

No. 1-"All's Fair in Love and War."
Sun., Feb. 15-8:00 P.M.—Council of Jewish Juniors.

Thurs., Feb. 19-8:00 P.M.-Study Group-"The Religion of the Jew."

FIRST BAPTIST CHURCH—Cor. Commonweath Ave. and Clarendon Sts., Boston.
Sunday, Feb. 15.

Sunday, Feb. 15.

10:30 A.M.—Morning service. Sermon by Rev. Austen K. deBlois, Ph.D.

12:00-12:45—Students' discussion group. Subject "The Christian Attitude toward Im-

ject "The Christian Attitude toward Imnigration." 7:30 P.M.—Students' social group. Speaker, Rev. Austen K. deBlois, Ph.D.D.D.

FIRST PRESBYTERIAN CHURCH — Cor.
Columbus Ave. and Berkeley St.
Sunday, Feb. 15.

10:30 A.M.—Worship and sermon, Rev. Hector Ferguson. 12:00 M.—Student Discussion Group and

Bible School.
6:00 P.M.-Supper followed by C.E. Meeting.

ing. 7:30 P.M.-Worship and Sermon, Dr. John McPowell of New York City.

8:00 P.M.—Friday: Week-day service.

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ENGINEER QUINTET DROPS GAME TO TUFTS

VISITORS ARE VICTORS TWICE AS VARSITY AND FROSH LOSE CONTESTS

Technology Outplays Tufts in First Period And Lead at Half Time 23-17-Coach Tries New Varsity Lineup

Technology suffered a double defeat at the hands of Tufts Wednesday night in the hangar when the varsity and freshman quintets dropped their games to the visiting teams. The varsity contest was close, the engineers amassing a total of 32 points against 35 tallies for Tufts. The frosh contest developed into a free scoring contest, the final count being 51 to 42.

After clearly outplaying and outvarsity quintet had the game yanked away from them in the second period when Tufts came through with a shower of long shots to give them the game. From the start it looked as if the Beavers were to have their night at last, for they ran up a score of 13 points while the Tufts team had made only one field goal and five free tires.

The engineer team continued to set the pace all through the first period, and had a 23-17 lead at the end of it. In the second period the visitors began to find the hoop on long shots, and dropped through four double deckers in rapid succession to pass Tech's score. The Beavers threatened through the remainder of the period, but a freezing process started by Tufts spoiled all hopes of a last minute victory.

Long Shots Work Well

Wilcox scored the first point for Tech on a free try. Forrester followed with one under the basket. He was fouled while shooting and dropped in two from the 15 foot line. Tufts then made their first tally on an under bas-

an under basket shot. A nice exhibition of shooting followed when Forrester, Eager and Hinck all dropped through long shots inside of a minute. Ingram dribbled down and scored from under the hoop and Forrester flipped on two short and a long shot, and the period ended with Tech enjoying a 23-17 lead and a good chance of winning.

Second Period Slow

The second period was of the sort which has become typical of this season's team. Fumbling, missing easy shots, the game rapidly slid out of their hands. The Tufts team was not slow to take advantage of the lull, and they began bombarding the hoop with long shots. They had better luck with these shots than they should have had and ime after time the ball whipped through the hoop to blast Tech's hopes of winning.
French, Tufts fiery headed forward,

slipped through two pretty baskets, giving them the lead for the first time in the evening. Ingram, who was putting up a fine game in his first game in the forward position, twirled in from un-der the basket, and Tufts followed with a similar shot, making the score 31-28 in favor of Tufts.

Wilcox grabbed the ball from an opposing player and sent it through for a double count. Tufts made good another circus shot. Hinck got the ball on the tap and looped it to bring the Tech score within one point of Tufts. The ball was scrimmaged around the

but the ball rolled off the rim on each of at least five tries. This cost the Beavers their last chance to win.

Tufts, with the game sewn up were unwilling to take any more chances like the last spell around the hoop, and played catch with each other for a while, while the Tech team tried feverishly to get the ball in play again, Tufts dropped a long basket just before the whistle blew for the end, leaving the Tech team on the short end of a 35-32 score.

Freshmen Drop Game

The new line up that Coach Mc-Carthy used in the game did not go across so well. It may have been due to the inexperience of the players in their unaccustomed positions, but the in the hangar during the past week and combination did not seem to work with are in fine fettle to make a good showthe desired smoothness. Capt. Eager ing tomorrow. Burke is going strong seemed off form, missing passes when in the unlimited class. seemed off form, missing passes when in good scoring positions. His work in his former place as guard was far ket shot. Long shots by Hinck and Ingram gave Tech a longer lead, while Tufts continued to keep in the running only by the numerous fouls which they superior. Hinck played a fine game in Forrester dropped a sleight of hand shot while closely guarded. Wilcox dribbled through the Tufts defense for and Wilcox played a fast game, the played his usual spectacular game, scorformer showing up very well in his first try at forward position.

The freshman team dropped the preliminary contest to Tufts '28 by a score of 51-42. It looked for a time as if the ball in from the side. Tufts scored the freshmen might break through to a win in the final, creeping up to within one point of Tufts at one time, but they were unable to come through.

The summaries:
TILITAGE
TUFTS M. I. T.
Bogosion, l.fr.f., Hinck
French r f
French, r.f l.g., Wilcox
McDonnell, c c., Eager
Dawson, l.g
Wil-
Wilson, r.g I.f., Forrester (Dimonds)
Score-Tufts 35, M. I. T., 32, Goals from
floor-French 8, Bogosion 3, McDonald 2, Daw-
Son Ingram 4 Forester 4 7
son. Ingram 4, Forrester 4, Eager, Hinck 3,
Wilcox 2. Goals on free tries—Bogosion 5
Dawson 2, Forrester 2, Hinck, Wilcox. Referee
O'Common Miles (2, 11mck, Wilcox, Referee
-O'Connor. Time-Two 20m. periods.
-

	TUFTS FRESH	M. I. T. FRESH	r
	Abrahms, Lf	ro Fe	+ae
	Robinson (Weisleber),	r.f 1.g., R	nee
I	Stantey, c	Mock (R	-11
Į	Nussabaum, I.g.	r.f., Blanchi (Mill	erl
I	Dayarski, r.g		7.00
١	Score—Tuits 51, M.	I. T. 42. Goals from	~~~
l	noor-Nussbaum 9, Ro	binson 5. Abrame	.1
l	Stamey 3, Weisleder 2	2. Bianchi 5. Cohen	4
l	Mack 2, Estes 3, Bell :	2. Ross. Goals on for	-00
l	tries-Nussbaum 3, Rob	inson 3. Stanley, We	
	leder, Cohen 5, Estes,	Bell. Referee-Bann	or.
	Time-Two 20m. halves	S.	

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WRESTLING TEAM **MEETS SYRACUSE** HERE TOMORROW

Technology Will Be Represented By Same Team As Met West Point

COYLE HAS CLEAR RECORD

The engineer grapplers face one of the toughest assignments of the season when they meet the Syracuse wrestlers in the hangar gym tomorrow night at 8 o'clock. This is the first time that Syracuse has been to Technology and the management expects a large turnout to greet the visiting team.

Technology will be represented by the same lineup which wrestled in the meet with the Army over the past week end and essentially the same group of men that has wrestled during the entire season. Coyle is going strong in the 115 pound class and intends to continue his records of no defeats during the present season. The scrappy little engineer has taken three bouts by falls and two by decision.

Tryon Going Strong Captain Fred Greer in the 158 pound class is another man who should give a good account of himself in the meet with the New Yorkers tomorrow night. The engineer captain had a tough assignment in Bradford of the Army and did well in coming through with a referee's decision.

Kurtin in the 125 pound class and Tryon in the 175 pound class have been showing up well in the daily practices

The men who will wrestle against Syracuse are: one hundred and fifteen

Gym Team Opens Season With Navy Gymnasts at Annapolis Tomorrow

Technology's gym team leaves tonight* for Annapolis where they will take on the strong Navy gymnasts in their first official meet of the season tomorrow. The Naval Academy has a reputation for putting out record-breaking gym out-fits so that the engineers will have to be in their best form to come through with a win.

The engineer delegation is composed of a number of veterans from last year's varsity, but a large amount of the work is being done by new men. An exhibition meet held at Milton Academy last Saturday showed that Technology has a gym team of repute that should chalk up an enviable record during the

coming season.

Good Material on Rings

Captain Turner is perhaps the best all round gymnast of which the team can boast. Although he is adept at most all

of the apparatus he specializes on the horse. The horizontal bars are well taken care of by Gaulphin and King, both of whom have been showing excellent form during the regular practice sessions.

Waller and Wayne are both accomplished tumblers and should come off with high honors in this event when they come up against the Midshipmen tomorrow. Smith is the only engineer entered in the parallels. There is a multitude of good material for the rings with Waller, Newcomb and Garcia compet-

Newcomb, Gaulphin and Turner will handle the rope climbing and if work during practice sessions is any criterion they should make the Navy climbers travel to win the event. The team has a number of outstanding stars which the Navy meet will most certainly reveal, but in addition it is beyond a doubt one of the best balanced teams that the

Institute has produced in a long time.
The men who will represent Techsyracuse are: one hundred and niteen pound, Coyle; one hundred and twenty-five pound class, Kurtin; one hundred and thirty-five pound, Hosch; one hundred and thirty-five pound, Drum; one hundred and forty-five pound, Drum; one hundred and fifty-eight pound, Capt. Greer; one hundred and seventy-five pound Tryon, and unlimited class, Burke.

Institute has produced in a long time. The men who will represent Technology are as follows: Horse, Captain Turner; Horizontal Bar, Gaulphin and Wayne: Parallels, Smith; Rings, Waller, Newpound Tryon, and unlimited class, Burke.

BOXING TEAM TO MEET CANADIANS TOMORROW

Technology's varsity boxing team takes on the McGill University glove pushers at Montreal tomorrow. engineer team has been slightly revamped, Kwauk who has been boxing in the 125 pound class will be entered in the 115 pound fracas against the Canadians and Captain Kuhn will change to the 135 pound group.

The 175 pound event has been cancelled the till of the cancelled the till of the cancel the

celled due to illness of the McGill boxer in this class so that Trask, the engineer heavy, will be able to fight in his own class for the first time this season. In order to make up for the 175 pound bout two 135 pound bouts will be fought. Captain Kuhn and Pierce will represent Technology in these events.

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Technology Track Coach Celebrates Twelfth Anniversary Of Breaking Record

By Phil W. Creden '27

It was just twelve years ago today on Wednesday, February 13th that Oscar F. Hedlund, coach of the trackmen, broke the world's indoor record for the mile run at the New York Athletic Association games in the 71st Armory, New York. In the same year Hans Kolhaimen, the Finnish hero of the Olympic Games of time was 3.12, less than four seconds

1912 was touring the country, creating as of the record for that distance and with much sensation as has the famous Paavo still a quarter of a mile to go. Nurmi by breaking one world's mark after another, and Hedlund and Kiviat matching strides in special mile races in about every athletic gathering.

Then wearing the Unicorn of the B.
A.A. Hedlund was always in the van in

any middle distance run with his fore-most competitor. "Kivie and I" as Os describes it were great rivals in those days, "running special races up in Troy one night and some other place the next. We had been Olympic teammates the summer before and in the finals of the 1500 meter race had run alongside each other, however, we did not come out so good in that particular contest." Kiviat Has Great Rival

"Kiviat was entered in the handicap run at the New York games but when we lined up for the race, he was missing. There were about 30 starters with a maximum handicap of 110 yards strung out along the 10-lap to the mile board oval. Taber of Brown and I were on scratch but Kiviat the other scratch man had withdrawn from the run because of the large handicap field."

In all their races Kiviat never met

Hedlund in a handicap field, always preferring a match race where he could set out and run his own race. Hedlund always liked a field in front of him for then he ran his best race, as he was an adept at passing other runners in fast time. As Os said, "there was Kivie in the press booth when I asked him why he wasn't in running clothes. I got back a 'Nothing doing,' from him.

"The little B.A.A. flyer," as he was

then called by the sports writers, started out strongly. He ran his first quarter in the fast time of 1 minute and kept up this pace throughout the rest of the first half mile, passing one runner after another as he sped around the boards. Taber stuck close at his heels and when Hedlund was clocked at the half in 2.03 3-5, the Brown flyer was a few strides in the rear.

Runs Great Race Os kept up this fast pace and was in beautiful form, stepping along the boards without apparent effort. He was out to win and without his old high-jinks Kiviat in the field he put on a remarkable exhibition. At the three-quarter mark his

Continued on Page 4

CLASS OF 1925

In a few months you will have completed your work at Technology. Do you appreciate the advantages which you have had in the years that you spent here? Then show your appreciation by following the footsteps of the two previous graduating classes and adopt the plan of endowment insurance to provide funds for Technology to "carry on" in the years to come.

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PLANS FOR CIRCUS NEAR COMPLETION

Arrangement Being Made to Use Calliope to Give True Atmosphere

Continued from Page 1

It is hoped that the fraternities will all come through with stunts, and that some of the branches of athletics will put up booths. According to present indications, there will be about 40 booths. The committee is counting on using booths left over from a fair that will be held in the armory during the first part of the week in which the circus will be held and expects thereby to save some expense.

Will Hold Parade

"The more the merrier," is the opinion of General Chairman Hoar, "and the more specialties, the merrier will be the circus. The only condition we make for putting on a stunt is that the stunt be funny.

At noon on the day of the circus a parade of the usual type will be held Plans for this feature are being made by the Publicity Department, but as yet the only definite plan has been the making of arrangements to incorpor ate a calliope to give true circus at

The next meeting of the Circus Committee will be held in the Committee Room, Walker, at 5 o'clock next Tuesday. At this meeting, more definite knowledge will be available regarding the action of the various fraternities at their meetings Monday night, on their individual stunts.

Engineering Will Help to Increase Safety of Flying

Plane Manufacturer Prophecies That Safety Shell Will Prevent Injury

Grover C. Loening, President of the Loening Aeronautics Corporation, gave in his address at New York University on the subject "Flying from an Engin-eering Standpoint," some interesting speculations on future airplane safety He further goes briefly into methods of plane design and tests. The following extract from the Cornell Daily Sun

gives the gist of the address:
"In air travel there is always the possibility of a fall," said Mr. Loening. Competent engineers of the future will not only realize but will actually design the airplane so that when it falls out of control there will be no injury to the occupants. The cockpit of such

Engineer Runners Hold Handicap Track Meet On Boards Tomorrow

meets during the past four weeks the engineer tracksters will not venture on foreign soil this week-end but instead will pace the boards in the seventh of a series of handicap meets which will be held over back of the track house. These meets are open to any Technology student who has enough ambition to get into his spiked slippers and betake himself to the rear of the track house. Although six of the meets have been already run off there is, according to Coach Os Hedlund, a great opportu-nity for any man who thinks that he can throw a mean spike to do his bit for Technology.

Vaulters Coming Strong

It was at first intended to send some Technology representatives to the N. Y. A. C. meet which is being held tomorrow in New York but due mainly to financial reasons the trip was called off. The next meet which will find the Cardinal and Gray racers présent season.

a machine will very likely consist of er and the resistance are tabulated a metal shell surrounded by shock-minutely in elaborate tables. He has proof absorbing material so that the thousands of measurements of the head most complete breakdown and accident resulting from the fall of the plane will ine. He shapes the body of his plane absolutely ruin the machine but hurt accordingly, uses the most appropriate no one. Aeronautical engineers are certain to work out the obvious limitations that aircraft have today if given the opportunity, time, encouragement and capital, with the result that the airplanes of tomorrow will soon be

"Flying at present is admittedly dangerous. But so is polo, steeple-chasing and mining. The question has often been asked why there is not a more general use of flying by the public, and where the blame may be placed. eers first for being slow in making for development and secondly the war.

Gained Technical Knowledge

"The stimulus given by a forced development during the war of the theory of planes and motors, when added to the enormous amount of flying that was done, has given us a vast technical knowledge. But this is of little good if it must remain locked up in the engineer's drafting room because of lack of public understanding and encouragement, which the great war distinctly hindered."

Discussing the construction of planes,

Mr. Loening said: "The engineer starts on paper to lay out an airplane, let us say, to carry a ton of load about 100 miles an hour. He refers to assembled data, gathered

After participating in several indoor at the starting gun will be the I. C. A. A. A. A. meet which will be held at New York on March 7.

> Both the Varsity and freshmen_will be represented at this meet. Capt. 'Chink" Drew, intercollegiate hammer champion, will receive his number for the first time this season in this meet. Although he will not be in his pet event nevertheless he is expected to give a good account of himself in the weight event. The hammer is omitted at indoor meets for reasons which are very obvious. Capt. Drew is out practicing daily with the 35 pound weight and is consistently doing around 45 feet.

> Os Hedlund is pleased with the showing which his pole-vaulters are making in daily practices and expects that when the outdoor season rolls around Technology will be well represented in that event. At present Hallahan, Jack, and Sanford are all doing over 11 feet and 6 inches and undoubtedly will climb higher with the advent of the outdoor

resistance of various parts of a machwing section, and formulates a preliminary design.

"The next step is his first check on the flying qualities. A model is made of the proposed plane to a scale about one-twentieth of full size and made with the accuracy of the highest precision tools to a thousandth of an inch This is then placed in a wind tunnel where air, travelling at forty or fifty miles an hour, is blown on the model The model, being suspended in this air flow by fine steel wires attached I do not hesitate to blame the engin- to the most delicate balances, is actually flying, but flying under the control these perfections, which we know will and command of an engineer who is make flying a go. The engineers carefully measuring the lifting power blame first the lack of available capital and resistance through a large range of angles. Lately we go even further. The rudders and controlling surfaces are made movable and the engineer sets them in different positions and measures actual controlling forces on the plane to such a high degree of accuracy that he finishes up by telling you the pounds force that will have to be exercised on the control stick in order to turn the machine in a given manocu-

> "After these tests are concluded and the various charts plotted the changes, if any are indicated as necessary, are made and the engineer proceeds with the construction. He starts with a vast amount of technical data on the de-tails of beams and struts and fittings and the stresses in members. These data are just as accurate and complete as engineers have to build bridges. Aeronautical engineering is most difficult and exacting.

Schedule of Course Talks for Freshmen

Prof. Spofford Prof. Miller Tues., Feb. 17-3-270 Thurs., Feb. 26-4-270 Prof. Lindgren Wed., March 4-Common Room, Rogers Prof. Emerson

Fri., March 6-4-270 Profs. Keys & Norris Fri., Feb. 20-10-276 Prof. Jackson Tues., Feb. 24-10-275 Prof. Prescott Prof. Norton Wed., Feb. 25-4-231 Thurs., March 5-4-270 Prof. Moore Prof. Lewis Wed., Feb. 18-4-270 Fri., Feb. 27-3-270 Prof. Jack Prof. Goodwin Mon., Feb. 16-4-251 Tues., March 3-3-270 Prof. Dewey

COACH OS HEDLUND ONCE RECORD BREAKER

(Continued from Page 3)

In the final quarter he kept up the same strong run, Tabor dropping back to fourth position and at the finish he was out ahead of the rest. Finishing in the time of 4.184-5 or one second ower than the old mark of 4.194-5 made by H. L. Trube of the N.Y.A.C. in 1908. Hedlund had previously tied this mark year before in a special run at Troy, New York. Several papers said that, 'he slowed down on the last lap as he did not believe he was so near the rec-

Hedlund was the kingpin of the milers. Here is an interesting comment of a sporting editor on his performance. Judging from the manner which O. F. Hedlund, the little mile runner of the B.A.A. raced through the field of handicap men at the New York A.C. games and at the same time made a new world's record for the distance, he should not fear any man in the world. Hedlund will have Kiviat to oppose him tomorrow night, and if performing in his best form should beat the New Yorker and win the first leg on the Baxter Cup."

Three days after Kiviat came back strong and in a special match race in the 71st Armory for the Baxter Cup at the Columbia University games the Boston flyer lost his title to the Irish-American star by about ten yards. Kiviat's time was 4.182-5 or 2-5 seconds faster than Hedlund's record. There was much dispute over just how great the distance was that separated the two star milers, the opinions ranging from yards to 5 yards.

The following is an extract from a sport's column of the day, that brings but this fact. "There seems to be a out this fact. lifference of opinion as to how far Hedlund trailed Kiviat in the Baxter Mile. The report sent out said that a distance of 25 yards separated the great flyers, while Jack Ryder, the B.A.A. coach says the distance was less than five yards. Now, E. T. Marceau, who won second place in the 1000 yard handicap, reports the margin as 20 yards, saying Hedlund slowed down when he found that he

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41 SUMMER STREET

Several pay checks for summer camp and the first term are still on hand.

could not beat Kiviat.

RESEARCH MAN IS OCCASIONALLY IN HIGHER POSITION

Professor Norton States That The Place of Science Has Changed

BLAZES THE TRAIL AHEAD

"Selection of the right course is important only to help a man get started early in effective work, but the main thing is to be a graduate of some Institute course." Professor Norton said at the freshman lecture yesterday.

'Many years ago, the scientific man, the chemist, physicist, and other research workers, were long haired individuals buried deeply in books, and pretty much out of touch with the That condition no longer exists. It is just as possible these days that the busiest man in an industrial plant will be not the chief engineer. but the head chemist, or the physicist in charge of research," he added later.

Few Men Study Science "The number of men going into pure science must of necessity be less than the number of engineers. There need be only one pioneer to a whole army of travellers. Once a bit of original research has borne fruit, it will take a large number of production engineers to put the invention on the market,' explained Professor Norton.

All the courses are about equally hard, and there is about the same chance of reward in all of them. Architecture is the place for the man with strong artistic instincts, and who has a large amount of human interest. Phvsics, Chemistry, and Biology appeal to the inventive, the inquisitive, the imaginative, and those really fond of sci-

Are Different Groups In Course IX According to Professor Norton, a large number of men go into Course IX because it gives them a general foundation. Many men do not decide what they want to do until their third year, and then they may change out of Course IX into any one of the other courses of the Institute. Another group of students take this course because they intend to take charge of their father's plant on graduation, and therefore do not want to be master of any one branch, but need rather to have the fundamentals of all the engineering subjects. Still another class of students in this course is the group which use this course for the foundation on which to build a study of aer-

The other science courses were all covered; Biology and Public Health and Geology, were described and their uses explained. The architects' problems of design, and the part that owner's notions, political pressure and building laws play in his profession were mentioned.

FRESHMEN TO MEET WORCESTER MERMEN

Continued from Page 1

feel of the board again, and is execut-

ing some very pretty dives.

The weakest department of the freshman lineup is the distance swims. None of the men entered in this event have as yet acquired the endurance to last 200 yards at full speed. The relay, with Grover as the anchor man, has been showing some speed and should win this event against the Academy, with little trouble. Hartshorne has shown considerable promise in the plunge and is built just about right for the under-water trip.

MECHANICAL SOCIETY MOVIE IS ON CEMENT

Continued from Page 1

rious tests for strength are made. The series of movies, of which this was one, are of general interest, and

are open to anyone who wishes to come. Unless the picture is longer than usual, it lasts about forty minutes.

Next Wednesday a film illustrating the manufacture of wire rope will be shown. A picture of this sort enables the citylest to set in the conjectors. the student to satisfy his curiosity as to how varous products are made, without going to the time and trouble of hunting up and going through the plant

Notices and Announcements

UNDERGRADUATE

TECHNIQUE PHOTOS

All informal photos to be submitted in the Technique Contest must be in by February 21. Leave them at the Information office or at room 308, Wal-

OUTING CLUB

There will be a trip to Mt. Monad-noch over the 22 of February. Good snowshoeing. Bulletin in basement of building 3 for details.

WANDERING GREEKS

Wandering Greeks, please make you. presence at the Institute known by signing the book placed in the main lobby near the Cashier's Office if you have not already done so.

CIVIL ENGINEERS

Lecture illustrated with slides will be given today in Main Hall, Walker, at 00. There will be eats and smokes.

TECH SHOW REHEARSAL

Show rehearsal today in North Hall

BIBLE STUDY GROUPS

All T. C. A. bible study groups will meet this Friday at 4 P.M., in 10-275. Professor Bowman will discuss certain material for the first ten minutes of the hour.

COLUMBIA MAKES M.I.T. **GRADUATE A PROFESSOR**

E. B. Phelps '99, a graduate of Course V, has been appointed Professor of Sanitary Science attached to the Institute of Public Health of Columbia University, it has been announced by the Columbia authorities.

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